REMARKS/ARGUMENTS

The following remarks are submitted in response to the office action issued in this case and mailed on April 19, 2004. Claims 1-24 are currently pending. Claims 19 and 24 are amended to correct typographical errors. Claim 6 are amended to more specifically claim Applicants' invention. Support for this amendment may be found on, at least, page 7, line 17 to page 8, line 15. No new matter is introduced by the amendment.

Applicants have reviewed carefully the instant office action and the cited references, and respectfully traverse the rejection of claims 1-24 under 35 U.S.C. 103(a) as allegedly unpatentable over Young et al. (U.S. Patent No. 5,682,180) in view of Havel (U.S. Patent No. 6,018,237). Young teaches the use of two opponent color vectors to account for the majority of all perceived colors and gives illustrative examples using an orange/cyan and black/white opponent color vectors. (Col. 3, lines 39-49). The use of the orange/cyan and black/white opponent color vectors as depicted in Figure 4 demonstrates that Young uses four colors, i.e., orange, cyan, black, and white, to simulate a full color image. Applicants submit Young fails to teach or suggest a two-color display of optical elements of a first color and a second color and being arranged in an alternating pattern. Instead, Young teaches the use of two opponent color vectors using a total of four colors.

Moreover, as described in Two-Dimensional Signal and Image Processing, "[b]rightness refers to how bright the light is. Hue refers to the color, such as red, orange, or purple. Saturation . . . refers to how vivid or dull the color is." Jae S. Lim, Two-Dimensional Signal and Image Processing, p. 414 (1990). Young teaches polarizing and filtering light on the Y axis to be orange, on the Z axis to be cyan, and between the Y and Z axes "to be a combination of orange and cyan, the proportion of each color depending upon the angle of polarization." (Col. 8, lines 44-46). Basically, Young teaches creating the hues orange, cyan, and a combination of the two from polarized light. However, Young is silent regarding the brightness of these hues. Young fails to teach or suggest varying, modifying, or using the brightness of the orange and cyan hues. Therefore, Applicants submit Young fails to teach or suggest:

1) translating the relative brightness of the points created by the full color display into a corresponding brightness for the respective points on the two-color display as required by claim 1,

2) translating the relative brightness of each point created by the three color display into a corresponding brightness for the respective points on the two-color display as required by claim 12, or

3) a process for translating the relative brightness of the three color components to relative brightness levels for the two-color elements of the display as required by claim 13.

Furthermore, Applicants note that the Havel publication fails to bridge the gap between Young and Applicants' invention. Havel fails to teach a device or method that translates the relative brightness of the points created by a full color display into a corresponding brightness for the respective points on a two-color display. Havel merely teaches measuring an input parameter and generating in response thereto, a two or three color variable display. Havel lacks any description of any system or method that translates a measure of relative brightness into anything. Moreover, there is no suggestion in either Young or Havel as to how the device of Havel could be modified to translate a measure of relative brightness on a three color display to a color display having a reduced number of colors, yet this is the explicit subject matter of all pending claims.

Applicants further submit that claims 6 and 7 patentably distinguish over Young and Havel as both references are silent as to and fail to teach:

1) adding the relative brightness of a third color of a point in a three color image to a relative brightness of the first color of a two-dimensional point of the first and the second color as required by claim 6 and

2) summing the brightness for a three color red element with half the brightness of the three color green emitter to determine the relative brightness for the two-color first color emitter, and summing the brightness for a three color blue element with half the brightness of the three color green emitter to determine the relative brightness for the two-color second color emitter as required by claim 7.

Accordingly, Applicants respectfully request withdrawal of the rejections of claims 1-24 over Young in view of Havel.

In light of the above, Applicants respectfully request allowance of claims 1-24 so this case may pass to issue.

Conclusion

Applicants request a two month extension of time with this response. Please charge our Deposit Account No. 18-1945, under Order No. TBRX-P01-001 from which the undersigned is authorized to draw for the applicable fees.

Dated: September 20, 2004

Respectfully submitted,

By _____

Agnes S. Lee
Registration No.: 46,862
ROPES & GRAY LLP
One International Place
Boston, Massachusetts 02110-2624
(617) 951-7000
(617) 951-7050 (Fax)
Attorneys/Agents For Applicants